

# MA3X558 (MA558)

## Silicon epitaxial planar type

For UHF and SHF bands AGC

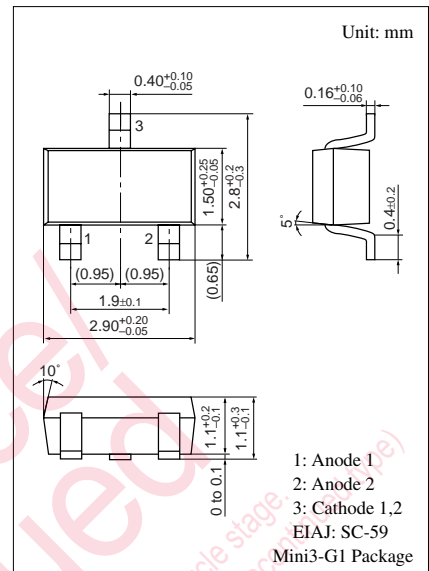
### ■ Features

- Small diode capacitance  $C_D$
- Large variable range of forward dynamic resistance  $r_f$
- Mini type package, allowing downsizing of equipment and automatic insertion through the taping package and magazine package

### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

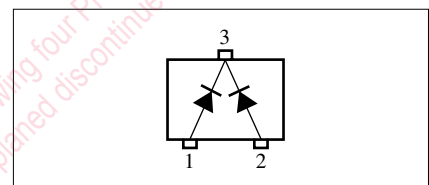
Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	$V_R$	40	V
Peak reverse voltage	$V_{RM}$	45	V
Forward current (DC)	$I_F$	100	mA
Power dissipation	$P_D$	150	mW
Operating ambient temperature *	$T_{opr}$	-25 to +85	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

Note) \*: Maximum ambient temperature during operation



Marking Symbol: M4C

Internal Connection



### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

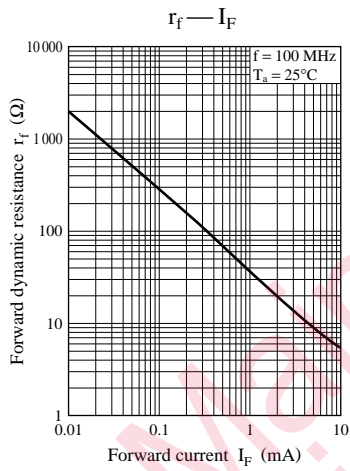
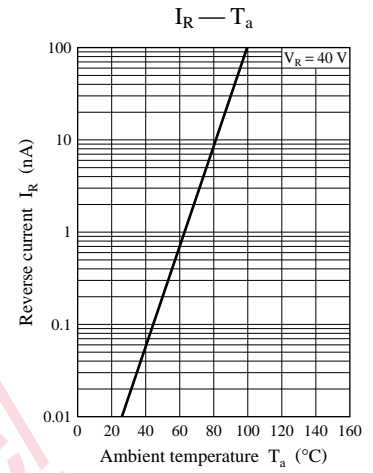
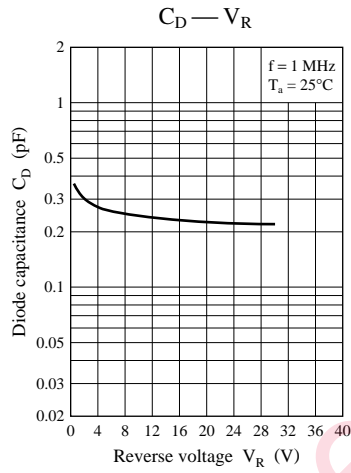
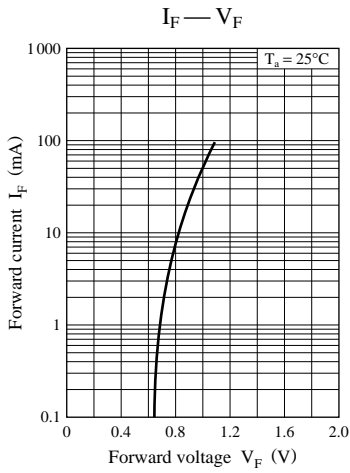
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	$I_R$	$V_R = 40\text{ V}$			100	nA
Forward voltage (DC)	$V_F$	$I_F = 100\text{ mA}$		1.05	1.2	V
Diode capacitance	$C_D$	$V_R = 15\text{ V}, f = 1\text{ MHz}$		0.3	0.5	pF
Forward dynamic resistance *	$r_{f1}$	$I_F = 10\ \mu\text{A}, f = 100\text{ MHz}$	1	2		$\text{k}\Omega$
	$r_{f2}$	$I_F = 10\text{ mA}, f = 100\text{ MHz}$		6	10	$\Omega$

Note) 1. Rated input/output frequency: 100 MHz

2. Each characteristic is a standard for individual diode

3. \*: Measuring instrument; YHP MODEL 4191A RF IMPEDANCE ANALYZER

Note) The part number in the parenthesis shows conventional part number.



Maintenance/Discontinued

Maintenance/Discontinued includes following four Product lifecycle stage.  
(planned maintenance type, maintenance type, planned discontinued type, discontinued type)

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